The Tester for
High Voltage Components
of the E-mobility

W 484
W 484 PLUS

Automotive | Railway/Transportation | Aerospace/Avionics | Industrial and Mechanical Engineering

WEETECH

W 484
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Designed to test high voltage cable harnesses and components for electric and hybrid vehicles, the low-cost **W 484** meets the requirements of the LV 123 industrial standard. The high voltage generator supplies voltages up to 4,300 Vdc/3,000 Vac and is current limited to a maximum of 3.8 mA. Therefore, the W 484 is considered harmless in accordance with DIN EN 50191. Optionally, an HVG 4300-12 with currents of maximum 12 mA can be used. Resistance measurements in the µOhm-range, insulation tests in the GOhm-range as well as a highly developed ARC detection, differentiated according to ARC and dIdt detector, enable a flexible application also in other areas.

The **W 484 PLUS** also provides cost-optimized functionalities for test benches and adaptation modules such as LED, detection or power points, which cover almost all requirements of different bench manufacturers.

Generators and Measuring Units

Insulation, Hi-Pot, DC and AC ARC Test	**HVG 4300**	
	· DC Voltage	48 to 4.300 Vdc
	· AC Voltage	48 to 3.000 Vac
	· Current	to 3.8 mA_{dc}, to 2.7 mA_{eff}, non-hazardous to touch according to DIN EN 50191 optional with HV generator HVG 4300-12 to 12 mA_{dc}, to 8,5 mA_{eff}, hazardous to touch according to DIN EN 50191
	· Ramp	Programmable from 120 V/ms to 1,000 V/ms
	· Measurement	Typically up to 10 GOhm, up to 500 MOhm ± 2 %
	· Highly sensitive ARC detection with step detector (voltage drop), slew detector (slew rate) and programmable dIdt detector	
Continuity, Short and Component Test	**UIF 48**	
	· Current	0,5 mA to 1 A
	· Current ranges	10 mA, 1 A
	· Voltage	0,5 V to 48 V
	· Output rating	30 W
	· Connection/Resistor	1 Ohm to 25 kOhm, 500 µOhm to 100 Ohm (Four Terminal Measurement)
	· Capacitance	from 1 µF to 10 mF
	· Twisted-Pair and Shield Test	
		from 10 pF to10 nF
		Checks pair inversion and shield integrity
	· Components	Diodes, Zener diodes, LEDs, Varistors
	· LV isolation	Typically up to 40 MOhm
	· Voltage measurement	0 to ± 500 V, frequency DC to 1 kHz
Component Test	**RLC Meter (optional)**	
	· Frequency	DC to 50 kHz
	· Capacitance	100 pF to 10 mF
	· Inductance	1 µH to 1 H
	· RLC Measurement Functions	|Z| Impedance, O Phase angle, R Resistance (serial or parallel), C Capacitance (serial or parallel), L Inductance (serial or parallel), D Dissipation factor, Q Quality factor

Typical values, valid at the front panel of the tester without adaptation at 25° C and a relative humidity less than 60 %

Functional Test

- Functional test of push buttons and switches
- Measurement of time-dependent current/voltage curves
- Import of characteristic curves of external devices and display/interpretation in CEETIS
- Supply of the UUT with external voltages (U1) up to 50 Vdc
- Emulation of the switching processes

Switching Matrix

Modules for Wiring Test TPM 8	Version for voltages up to	1.000 Vdc/750 Vac	Output connector DIN 41612 C ERNI
		4.300 Vdc/3.000 Vac	Output connector Harting Han 46 EE

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Module TM 260-64 for LED-, Power-, Connector detection- and detection points

- 64-pin output connector conforming to DIN 41612, type C
- Single point matrix, switching elements are transistors
- Test point cards with 64 points

The functionality of test points is programmable in CEETIS:

- LED points to activate LEDs simultaneously with associated test points, e.g. on an assembly board
- Power points to switch external voltages (U1) to 50 Vdc, currents to 150 mA, e.g. for functional tests of relays
- Connector detection points to check the presence of all connectors before the electrical test
- Detection points to check the non-electrical components such as secondary locks at a connector or clips at the harness
- Maximum switchable current 150 mA

Modules for Functional Test

- Power modules to switch external voltages (U1) to 50 Vdc, currents to 150 mA (TM 260-64) / to 3A (TPM 8-A/EE)

Safety

HVG 4300

- Non-hazardous output voltage of the high voltage generators due to certified current limitation to 3,8 mA_{dc}, 2,7 mA_{eff} (according to EN 50191 max. 12 mA_{dc}, 3 mA_{eff})
- Monitoring of the supplied energy against the limit value according to DIN EN 50191

HVG 4300-12

- Optional HV generator with current limitation to 12 mA_{dc}, 8,5 mA_{eff}
- Integrated HV-SAFETY in HVG 4300 for safe disconnection of the connected generators via EMERGENCY STOP, SAFETY, or HV-ENABLE

Further Details

Interfaces

- Ethernet interface with opto-decoupling of the control PC
- Remote Control interface to trigger external devices, e.g. feeders and fixtures
- Software controlled integration of external devices via LAN, IEEE 488/GPIB, RS 232, CAN-Bus, CANOPEN-Bus, K-Line
- Connection to customer specific ERP-Systems

Dimensions W 484

- Compact 19 inch enclosure
- W 484-1 with max. 264 test points
  Dimensions W x D x H (mm): 450 x 650 x 450, with retractable handles
- W 484-2 with max. 528 test points
  Dimensions W x D x H (mm): 450 x 650 x 620, with retractable handles
- W 484-3 with max. 792 test points
  Dimensions W x D x H (mm): 2 units each 450 x 650 x 450, with retractable handles

Dimensions W 484 PLUS

- Compact 19 inch enclosure
- W 484-1 PLUS with max. 264 HV-, 768 LV-test points
  Dimensions W x D x H (mm): 450 x 650 x 510, with retractable handles
- W 484-2 PLUS with max. 528 HV-, 768 LV-test points
  Dimensions W x D x H (mm): 450 x 650 x 700, with retractable handles
- W 484-3 PLUS with max. 792 HV-, 768 LV-test points
  Dimensions W x D x H (mm): Box 1, 450 x 650 x 510, Box 2, 450 x 650 x 450 with retractable handles

Power Supply

- 100 to 240 Vac, 1-phase, 50 to 60 Hz, max. 800 VA

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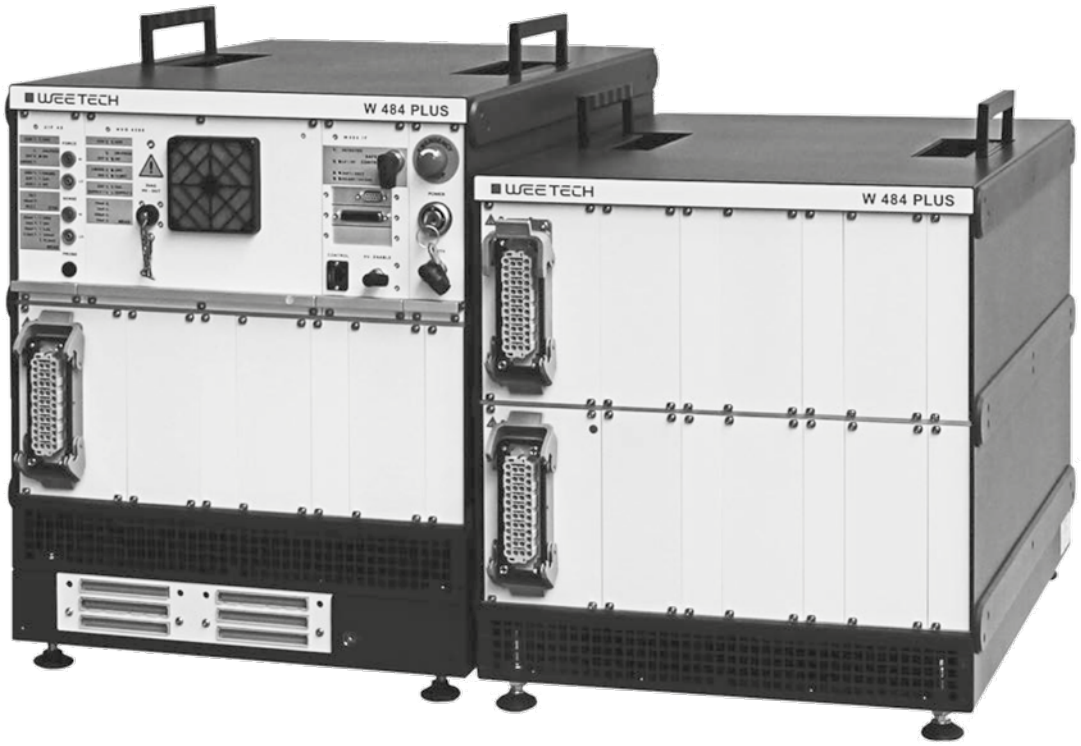

W 484-3 Plus

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